REMARKS

The foregoing amendments and the following remarks are responsive to the June 9, 2003 Office Action. Claim 8 remains as originally filed, Claims 2-4 are cancelled and Claims 1, 5-7, and 9 are amended to better distinguish the present invention over the prior art. Thus, Claims 1 and 5-9 are presented for further consideration. Please enter the amendments and reconsider the claims in view of the foregoing amendments and the following remarks.

The Claim 9 Objection

Claim 9 was objected to for lacking antecedent basis in regards to "the linear vibrations" element, which was not recited in claim 1 on which claim 9 depends. The Applicant respectfully submits that the objection has now been overcome in view of the amendment to claim 9.

The 35 U.S.C §102(b) Rejection

Claim 1 stands rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Abramovitch, (USP 5,663,847). The Applicant has amended claim 1 to better distinguish the claimed invention over the cited reference.

The Applicant respectfully submits that all the limitations as set forth in the amended claim 1 are not found in Abramovitch, and thus, amended claim 1 is not anticipated under 35 U.S.C. §102(b).

The claimed invention of this application comprises key elements that cooperate to provide a solution to a particular problem involved in the disk drive art; that is, the problem of the disturbance torque that may be imposed on an imbalanced actuator due to vibrations, such as linear vibrations, experienced by the disk drive during track following operations, as is described in detail in the specification starting at page 7, line 18.

Amended Independent Claim 1

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Claim 1 recites in part:

a method of adaptively reducing an effect of vibration during the track

following operation comprising:

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altering the sensor gain value via an adaptive gain filter having multiple

coefficients wherein the altering is an based on the position error signal and the

sensor value associated with the presently active servo wedge for use during a

next active servo wedge.

The patentability of the above feature of claim 1 over Abramovitch can be
understood with reference to the description in the specification starting at page 19 line 11
and particularly starting in line 18 of page 20 with the below equations:

$$W = (w_1, w_2) \text{, and } \nabla_W(J) = \frac{dJ}{dw_1} + \frac{dJ}{dw_2}$$

where "W" represents the vector of a filter gain, (as presented in page 19, line 19)
and having two coefficients of w1 and w2, each of which define the characteristics of the
filter such that changing the value of either coefficients results in a change in the
characteristics of the filter. Thus, by modifying the values of each of coefficients w1 and
w2 the filter can in effect be tuned to further refine the altering of the sensor gain value.

According to page 5 of the Office Action, Col. 7 lines 40-43 of Abramovitch
discloses the foregoing features of claim 1. The Applicant respectfully disagrees.

While Abramovitch is directed to a general reduction of disturbances on a disk
drive by use of an accelerometer, Abramovitch is silent as to a method that alters a sensor
gain value using an adaptive gain filter having multiple coefficients wherein the altering

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is an based on the position error signal and the sensor value associated with the presently active servo wedge for use during a next active servo wedge.

Claim 1's patentability over <u>Abramovitch</u> is best understood with reference to Figure 10 of <u>Abramovitch</u> (reproduced below for ease of reference) which discloses an accelerometer compensator 1014 and a filter 1016.
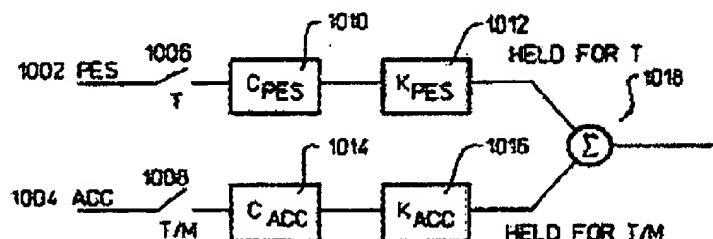

FIG. 10

As described in the cited reference, the filter 1016 has a gain of KACC while the accelerometer compensator 1014 has a CACC value that is a <u>constant</u>. At the cited reference, <u>Abramovitch</u> thus merely discloses a filter 1016 that has a <u>single</u> coefficient of KACC, and <u>not</u> multiple coefficients as stated in the Office Action. <u>Abramovitch</u> therefore does not disclose the foregoing feature of the present invention in which a sensor gain value is altered via an adaptive gain filter having <u>multiple</u> coefficients.

For the foregoing reasons, the Applicant thus respectfully submits that <u>Abramovitch</u> fails to teach or suggest as a whole all of the limitations recited in Claim 1 and thus, does not anticipate Claim 1 under §102(b).

<u>Dependent Claims 5-9.</u>

Claims 5-9, are not anticipated under §102(b) for at least the reason that they are directly or indirectly dependent on claim 1. The arguments set forth above regarding the

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base claim are equally applicable here. The base claim being allowable, the dependent claims must also be allowable.
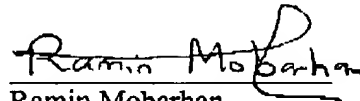
<u>Request for Allowance</u>

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,

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